

# MOPHIMS User Group Newsletter

February 2020- Issue #22

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## Happy 2020!

The MOPHIMS team would like to wish all of our readers a very happy new year! With a new year comes new ideas, so you might notice some changes to the MOPHIMS User Group Newsletter. This year, we're going to focus on how our team and our users receive data, package it, and use it to further public health practice. We also plan to have a different guest author for each issue in order to explore some novel datasets and uses of data. If you're interested in contributing, just email [MOPHIMSUserGroup@health.mo.gov](mailto:MOPHIMSUserGroup@health.mo.gov).

In this issue, we'll explore the many transformational steps data takes before it is shown on the WIC MICAs. On the other side of the coin, we also wanted to highlight how population data is utilized through the Certificate of Need (CON) process to help with healthcare infrastructure decision-making. Finally, we'll share some numerical tidbits from our annual Missouri Vital Statistics report—I know you nerds enjoy factoids!



## From Participant to Public Information- WIC

Some of the most resourceful, yet commonly overlooked, datasets on MOPHIMS are the WIC datasets. The Special Supplemental Nutrition Program for Women, Infant, and Children (commonly called by its abbreviation WIC), is a federally funded program administered by state agencies that provides nutritional assistance to lower income mothers and their young children. The program provides food or money to purchase approved food, breastfeeding assistance, prenatal pregnancy health assistance, and other services. The duration of the assistance can begin during the mother's pregnancy, may continue through childbirth and infancy, and can last up to the time when the child reaches their fifth birthday. Because of the varying needs of the program participants during this time span, individuals are classed into four categories:

1. prenatal - pregnant mothers
2. postpartum - mothers after childbirth
3. infants - children under 12 months of age, and
4. children - children older than 12 months but less than five years old.

Most of WIC is administered by local public health agencies. In Missouri, the Department of Health and Senior Services requests that as public health officials perform WIC functions, they collect and enter WIC participant information into the Missouri WIC Information Network System (MOWINS). If you are reading this and have entered information into MOWINS, THANK YOU, as you are the primary data source for the WIC information that is displayed in MOPHIMS. Without you, the WIC datasets would probably not exist.

Every year, the MOWINS data, needed for the MOPHIMS system, is repackaged by ITSD (information technology service division) professionals and that data is sent to us, the Bureau of Health Care Analysis and Data Dissemination (BHCADD) research analysts. We then take that MOWINS raw data and run them through a set of statistical analysis programs to determine frequencies, rates, and other calculated values. Some of the calculations are relatively simple, such as finding a child's age, while some of the calculations can be quite complex, such as determining if the birth weight of a baby is "very low". For children and infants, our statistical programs use one year of MOWINS information to produce a year's worth of data for MOPHIMS. However, for mothers' information, MOPHIMS combines several years of raw data to do one year's worth of analysis. This is done to ensure that the whole length of a mother's pregnancy is covered as the pregnancy can begin in one reporting year and end in another, and to account for the possibility of a mother delivering a baby and becoming pregnant again in a single year.



#### Maternal, Infant and Child Health MICAs

- Birth
- Fertility and Pregnancy Rate
- Pregnancy
- WIC Child
- WIC Infant
- WIC Prenatal
- WIC Postpartum
- WIC Linked Prenatal-Postpartum

Once the data is analyzed and verified for accuracy, it is loaded into the MOPHIMS website and made available for you to use. If you have not explored our WIC MICAs, I strongly encourage you to take a look at them. It will be hard to find a richer dataset of the women and children of Missouri than of our WIC data. We have five MICAs, four of which align with the four WIC programs ([Prenatal Mothers](#), [Postpartum Mothers](#), [Infants](#), and [Children](#)), along with a fifth

[Linked Prenatal-Postpartum MICA](#) for mothers who participated in both the postpartum and prenatal programs that year. In each MICA, along with basic demographic information, you will find dozens of variables to select from, including breastfeeding patterns, mothers' physical condition during pregnancy, smoking habits, education levels, Medicaid enrollment, and children's eating and exercise habits. In addition to the WIC MICAs, data from WIC is also utilized in the MOPHIMS Profiles.

#### WIC Data Transformations



We sincerely hope you are able to make good use of the WIC data in the MOPHIMS system. If you have and questions or comments about WIC, please reach out to us and let us know. For more information on all the health services offers Missourians, check out [DHSS's WIC website](#).



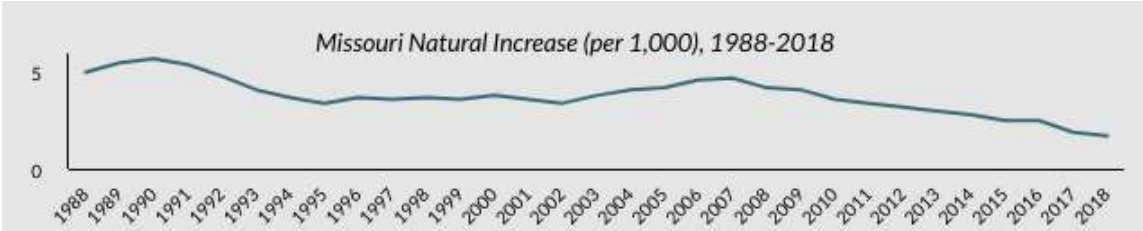
#### The Annual Missouri Vital Statistics Report is Here!

Guest article by Elizabeth McCarthy

Did you know that between the months of September and October 2018, there were over 10,000 marriages across the state? Or that in 2018, unintentional injuries were the leading cause of death for Missourians 25-34 years old? All of this, and much more, can be found in the recently published [2018 Missouri Vital Statistics](#) (MVS) publication. The MVS is published every year, dating back to the first one published in 1911.

Inside, there are over 40 tables regarding all types of vital statistics data, including birth, abortion, natural increase, death, marriage, and divorce. The tables range from aggregate statewide data, to each of the 115 counties, and even include larger cities with 25,000 people or more. Several aggregate birth related statistics are not available elsewhere,

such as obstetric procedures during delivery ([Table 5B](#)) or if the infant was admitted to the NICU after birth (Tables [10A](#), [10B](#), [10C](#), & [10D](#)). Another example is how the natural increase data (Tables [16A](#), [16B](#), & [16C](#)) can be helpful in determining if a particular population of Missouri is growing or decreasing. This statistic is easily calculated by crude death rate from the crude birth rate of a region. A positive number shows a growing community, while a negative number (or population decrease) indicates a community has more deaths than births in a given time period. Overall, Missouri has a natural increase rate of 1.7. In recent years, the MVS has reported marriages by the gender of the partners, and is a great source of information regarding same-sex marriages.



With this edition, we added a new table ([12C](#)) which focused on post-abortion complications that were reported to the Department. This data, mandated by state statute, showed that only 2.3% of abortions that occurred in Missouri during 2018 had a complication associated with the abortion procedure.

As a note, while a lot of the birth and death information is also available on MOPHIMS, some of the counts may not match up perfectly due to some differences in the calculation methods. To clarify these issues, check out the individual MOPHIMS tool documentation and the [MVS Appendix](#).

Come and check out what the MVS publication can do for you and your public health needs. The most recent publication can be found here: <https://health.mo.gov/data/vitalstatistics/mvs18/Preface.pdf> and our archive can be found here: <https://health.mo.gov/data/vitalstatistics/data.php>. If you ever have any questions, please reach out to us and we will do our best to help.

*Elizabeth McCarthy is a research manager in the Bureau of Epidemiology and Vital Statistics. She and her team contribute to many datasets, but have a focus on birth and birth defect data. If you have questions on these topics, or the MVS information shared above, please contact Elizabeth at 573-751-6206 or [Elizabeth.McCarthy@health.mo.gov](mailto:Elizabeth.McCarthy@health.mo.gov).*



**Data Updates**

Nearly all of our MICAs and Profiles have been updated with the most recent data available, usually through 2018. Just a reminder that while the hospital-based datasets aren’t being updated online, yet we do have data through 2017 available upon request. Just reach out and we’ll get you the info that you need!

MICA	Most Recent Data Year Available	MICA	Most Recent Data Year Available
<a href="#">Birth MICA</a>	2018	<a href="#">Population MICA</a>	2018
<a href="#">Cancer Incidence MICA</a>	2016	<a href="#">Pregnancy MICA</a>	2018
<a href="#">Chronic Disease Death MICA</a>	2018	<a href="#">Preventable Hospitalization MICA</a>	2015

MICA	Most Recent Data Year Available	MICA	Most Recent Data Year Available
<a href="#">Chronic Disease Emergency Room MICA</a>	2015	<a href="#">Procedures MICA</a>	2015
<a href="#">Chronic Disease Inpatient Hospitalization MICA</a>	2015	<a href="#">WIC Prenatal MICA</a>	2018
<a href="#">Death MICA</a>	2018	<a href="#">WIC Postpartum MICA</a>	2018
<a href="#">Emergency Room MICA</a>	2015	<a href="#">WIC Linked Prenatal – Postpartum MICA</a>	2018
<a href="#">Fertility and Pregnancy Rate MICA</a>	2018	<a href="#">WIC Infant MICA</a>	2018
<a href="#">Injury MICA</a>	2015	<a href="#">WIC Child MICA</a>	2018
<a href="#">Inpatient Hospitalizations MICA</a>	2015		



### #MOPHIMSMONDAYS

Some of you might have noticed a new hashtag floating around the Department's social media accounts. BHCADD started the #MophimsMondays campaign in the fall of 2019 to bring more awareness to the MOPHIMS health data tools and how social media can be used as a savvy messaging tool in #PublicHealth. We've received some really great feedback from the campaign, as well as some friendly suggestions that we continue to incorporate into our work. These posts have garnered some media attention and allowed us to share local-level data to a wider audience, which continues to be one of the campaign goals. If you'd like us to create a post highlighting your jurisdiction or a particular topic of interest, just [send us an email](#). Be sure to follow @HealthyLivingMo on [Twitter](#) and [Facebook](#) to check out all of the Department's social media content.

Interested in learning more about how you can make social media work for your organization? Check out [Social Media in Public Health: A Vital Component of Community Engagement](#), a fabulous blog post co-authored by one of our MOPHIMS user group members, Elizabeth Walsh from Kansas City ([@KCMOHealthDept](#))!



### Real Life Use of Population Data- Certificate of Need

One of the statistics recently updated in our MOPHIMS System is the 2018 Missouri population data. To get your hands on this data, you will need to navigate yourself to [Population MICA](#) where you can find population data for the last 20 years (1999-2018). You can generate all sorts of data here by looking at various variable selections, such as multiple years, different geographies (counties/select cities/BRFSS regions, etc), customized and single-year age groups, along with race and ethnicity.

Population MICA

Choose Your Data

Year: ☒ Single Year(s) ☐ Multi-Year Groups 2018 ▼

Geography: Statewide ▼

Age: ☐ Single Age ☒ Basic ☐ Expanded ☐ Custom Group All selected (5) ▼

Sex: All selected (2) ▼

Race: ☒ Basic ☐ Expanded All selected (2) ▼

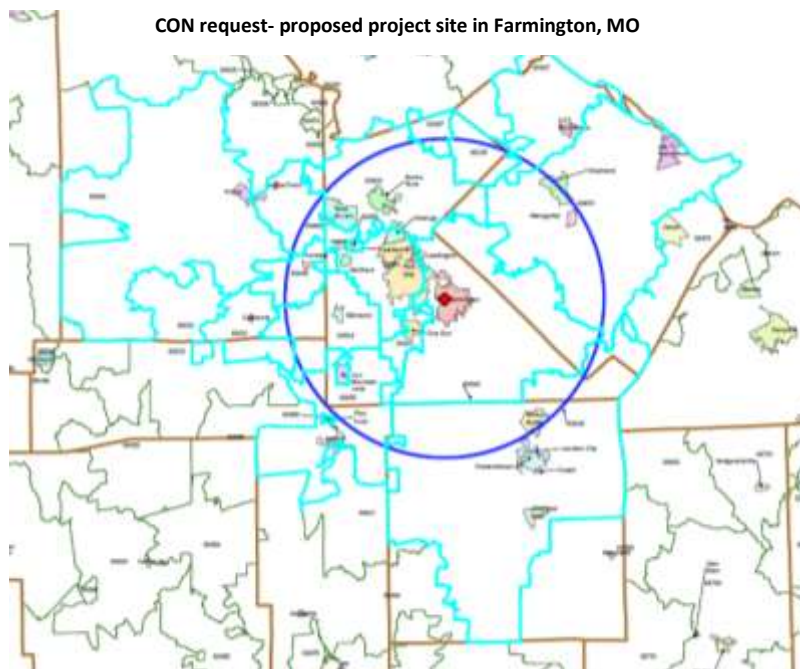
Ethnicity: All selected (2) ▼

Population data is vital in calculating a good number of statistics that we use on a daily basis to measure the overall health within our communities. We use it in calculating crude and age adjusted rates which allow for fairer comparisons between geographies with different population totals and groups with different age distributions. Moreover, we use it in calculating [years of potential life lost](#) and [life expectancy](#), both of which are a good measures of the overall health of an area.

The Bureau of Health Care Analysis and Data Dissemination (BHCADD) also uses population data to make future population projections. Just recently, BHCADD staff used the newly released data, along with previous Census data and past/current state projections, to help calculate 2025 population projections for Missouri counties, cities and zip codes. These projections are vital to the [Certificate of Need \(CON\) program](#), which uses this data and other information to determine if a community is in need of proposed health care services to be established or expanded in a given area.

CON [regulations](#) ensure that select health care infrastructure projects must meet both expected and unanticipated public needs. Depending on the population the new facility is going to serve, CON requires submitting a [Letter of Intent \(LOI\)](#) which requires submitting Missouri population data and maps. Examples of health care infrastructure projects that require a CON application include, new facilities that plan on opening long term care beds or existing facilities that plan on increasing their bed capacity, and facilities that plan on making major medical equipment improvements. Part of the application requires submitting the appropriate population projections for all the cities and zip codes within 15 miles of the project site. The CON office uses this data to not only decide whether there is a need for that proposed healthcare service in that area but to also decide whether the prospective business will meet the community need. They do so by evaluating the ratio of competing interests to population served in order to prevent unnecessary duplications, which helps promote economic value.

Knowing the projected pattern of change with population data helps the CON office predict future needs of a community and maintain a balance between the number of healthcare facilities in an area and the population that will become potential customers. If the number of healthcare facilities exceeded the population to be served, it could possibly result in healthcare inflation. This inflation may force hospitals or nursing homes to increase its service charges because it cannot fill its beds to keep up with its fixed costs.



## Practice Exercise

A local hospital in northwest Missouri has indicated that they would like to partner to grow a maternal smoking cessation program in my area. As I serve the WIC enrollees for Nodaway and Andrew Counties, they have asked that I gather a few pieces of data that could be useful for planning using 2018 data.

1. a. How many WIC enrollees in Nodaway and Andrew Counties participated in both prenatal and postpartum WIC programs? \_\_\_\_\_  
b. In Missouri? \_\_\_\_\_
2. How many enrollees in my area smoked:
  - a. Three months prior to pregnancy? \_\_\_\_\_
  - b. During the last three months of pregnancy? \_\_\_\_\_
3. The smoking cessation program would like to focus on mothers who have made a quit attempt or stopped smoking during or after their pregnancy. Which variables on the WIC Linked Prenatal-Postpartum MICA might be useful to explore before establishing activities and goals?

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4. Grant funding requires that the program evaluate progress after five years. Using the last five years available in MICA, what would you say about the number of women utilizing WIC in Nodaway/Andrew Counties who quit smoking by their first WIC prenatal visit and stayed off through delivery and their first postpartum visit? If appropriate, create a chart complement your narrative to include in the evaluation.

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## About the MOPHIMS User Newsletter Group

The MOPHIMS User Group Newsletter was created in response to user requests for communication on updates to the MICA system, descriptions of new features, additional practice exercises, announcements of training opportunities, and any other new information about data that might help them perform their jobs more efficiently.

Newsletters will be published on a semi-annual basis. If you have ideas for content, please send them to [Andrew.Hunter@health.mo.gov](mailto:Andrew.Hunter@health.mo.gov) or [Whitney.Coffey@health.mo.gov](mailto:Whitney.Coffey@health.mo.gov). We would especially like to feature stories describing your success at completing projects or obtaining grants using the MICA tools as well as interviews with public health professionals about your duties and how you use MICA to accomplish them.

Past issues are available at <http://health.mo.gov/data/mica/MICA/newsletters.html>.

Contributors: Andy Hunter, Whitney Coffey, Jeremy Rowles, Teresia Owusu, and Elizabeth McCarthy



**How to Sign Up or Opt Out**

If you have enjoyed this newsletter, please feel free to share it with your colleagues and community partners. We encourage them to sign up for the MICA User Group by sending an email to [MOPHIMSUserGroup@health.mo.gov](mailto:MOPHIMSUserGroup@health.mo.gov) with the subject line MOPHIMS User Group. This will let us know to send newsletters to them directly so they do not miss any information. Also, we may occasionally distribute time-sensitive information on topics such as training opportunities via e-mail if the newsletter is not scheduled for publication prior to a registration deadline. Finally, the MOPHIMS User Group list helps us track the types of organizations using the tools, which is one of our performance measures.

If you would like to opt out of the MOPHIMS User Group, please send an e-mail with Unsubscribe in the subject line to [MOPHIMSUserGroup@health.mo.gov](mailto:MOPHIMSUserGroup@health.mo.gov). PLEASE NOTE: Depending on your position title, you may still receive other types of e-mail messages from us. For example, we are requested to send training information to all LPHA Administrators, even if they have unsubscribed from the MOPHIMS User Group.

**Contact Information**

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